



Total Digital Connectivity Solutions

User's Manual

1x2 HDMI Distribution Amplifier

HD-D102N

Cautions:

1. Digital extender logo is our own trademark of RTcom USA.,Inc.
2. Any of the products may be changed without any notice in order to improve the function of the product.
3. The design and specification of the product may be changed without any prior notice.

Unpacking

HD-D102N HDMI Distributor package includes the following items;

- HD-D102N HDMI Distribution Amplifier Unit x 1
- 5V Power Supply Adapter x 1
- User manual x 1

Declaration of Conformity

According to Council Directive 73/23/EEC (February 19, 1973) on the Harmonization of the Laws of Member States relating to Electrical Equipment; Council Directive 89/336/EEC (May 3, 1989) on Electromagnetic Compatibility; Council Directive 93/68/EEC (July 22, 1993)-Amending Directives 89/336/EEC (MC) and 73/23/EEC (Low Voltage Equipment Safety), and/or CPU Boards and Power Supplies used Council Directive 93/68/EEC with Distributor, RTcomUSA, Inc., 286 Houses Corner Rd. Sparta, NJ 09871 973-383-4878, declares under sole responsibility, that the product identifies with 93/66/EEC of the Council Directive Low Voltage Equipment Safety. Each product marketed is identical to the representative unit tested and found to be compliant with the standards.

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Description, General Specification

Digital extender® HD-D102N HDMI Distribution Amplifiers, allow one digital video sources to be spilt into multiple digital displays.

The built-in amplification function enables HDMI signal distribution without signal loss

ITEM	DESCRIPTION
Model Name	HD-D102N
Input Signal	HDMI Single Link , 1port
Output Signal	HDMI Single Link , 2ports,
Resolution	640x480, 800x600, 1024x576 1280x720, 1920x1080 480i/p , 720i/p , 1080i/p, 1080p
HDCP Support	OK
Power Consumption	DC +5V ,13W Max
Dimension	182(W) x 108(D) x 35(H) mm
Weight	560 g

1-2 Description , General Specification

Environmental and Reliability Specifications

1 Operating Conditions

Temperature : 10°C~ 40°C
Humidity : 10% ~ 80%, non-condensing
Altitude : maximum 3,000m

2 Transportation Conditions

Temperature : -25°C~ 60°C
Humidity : 5% ~ 95%, non-condensing
Altitude : maximum 15,000m

3 Storage Conditions

Temperature : -20°C~ 45°C
Humidity : 5% ~ 95%, non-condensing
Altitude : maximum 3,000m

4 Reliability Specifications

MTBF : more than 50,000 hours at 90% confidence level

Reliability specification and items : refer to “Specification of reliability test for LCD monitor”

1-3 Environmental and Reliability Specifications

Main Features

High Quality Picture - No Signal Loss and Digital Noise Free

Our Distribution Amplifiers are built to deliver the highest quality picture preserving the native resolutions of the video sources without any signal loss. At the same time, the digital noises that may affect the picture quality will be eliminated. Due to the nature of the digital signals and passing through multiple stages of connection when using distribution amplifiers, it is important to eliminate the digital noises and boost the signal strength to preserve/enhance the video signal quality.

Signal Amplification for signal reliability and long length signal transmission.

Our 5V power adapter supplies adequate power to amplify the video signals from the video source. This is necessary as the overall length from the video source to the displays is longer when using the distribution amplifiers (distance from the video source to the distribution amplifier + distance from the distribution amplifier to the display). In most cases, the overall distance that the HDMI signal will need to travel is over 10ft. Due to the nature of HDMI signals, amplification is necessary to warrant the video quality and reliability. (Without amplification, there may be occasional blackouts or blinking effects or no sound) With this amplification feature, your video display can be extended up to 50ft using RTcomUSA, copper HDMI cables.

Compliance to HDMI ver 1.3

Our HDMI distribution amplifiers support HDMI ver 1.3.

It allows for higher resolution, such as WUXGA (1920X1080p) crossing a single digital link.

HDCP (High-bandwidth Digital Content Protection) Compliant

Our HDMI distribution amplifiers are fully HDCP compliant. Many video sources such as DVD players and Satellite/Cable Receivers are HDCP encrypted. For these video sources to be displayed correctly, Must be HDCP compliant devices (e.g., TV / Projector, HDMI Receiver, Distribution amplifier) are required.

Video Connection

1. Connect your video source's HDMI output port to the HD-D102N's HDMI input port using standard HDMI cables (not included). Make sure all your HDMI source and the displays are turned off before connecting the cables.
2. Connect your HDMI display's HDMI input port to HD-102N's HDMI output port. Make sure your HDMI display is turned off before connecting the cables.
3. Plug the 5V power supply into the switch's power input port.
4. Plug the 5V wall mount power supply into the wall outlet.
5. Turn on Distributor power.
6. Turn on your displays.
7. Turn on your video source.

EDID Set up

I. EDID Set up

- 1, Disconnect all HDMI cable,
- 2, Connect Monitor or HDTV to **"OUTPUT 1"** back panel of Distributor
- 3, Turn on distributor and HDTV power
- 4, Push the "EDID" button in front of HD-D102N (3 sec)
until GREEN LED light is on.
- 5, Turn off distributor
- 6, Reconnect all device follow the **"Video Connection"**

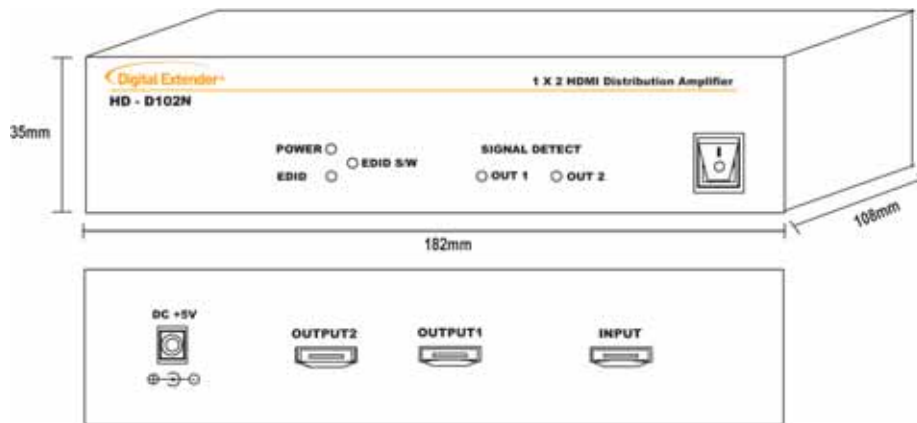
**** EDID [Extended Display Identification Data]

EDID is defined by a standard published by the Video Electronics Standards Association (VESA). The EDID includes manufacturer name, product type, phosphor or filter type, timings supported by the display, display size, luminance data and (for digital displays only) pixel mapping data.

Mechanical Specification

Dimensions

HD-D102N : 182(W) x 108(D) x 35(H) mm



DC 5V : DC Power Input (+5 V)

POWER : Power On / Off Switch

ON : Power On / Off Indication LED

INPUT : HDMI Input Signal

OUTPUT 1 ~ 2 : HDMI Output Signals

EDID: indicate EDID on/off

EDID s/w : EDID Setting Switch

Technical Specification

Frequency bandwidth: 2.25 Gbps (Single Link)
Supporting Graphic Resolution: 640x480, 800x600, 1024x576
1280x720, 1920x1080
480i/p, 720i/p, 1080i/p

Inputs: HDMI Female 1 port
Output: HDMI Female 2 ports
Power supply: DC 5V, 2A Adapter included.

Connector Pin Assignment

HDMI Input , Output

Part No.	Pin No.	Description	Remarks
HDMI 19pin	1	TMDS DATA 2P	
	2	TMDS DATA 2 Shield	
	3	TMDS DATA 2M	
	4	TMDS DATA 1P	
	5	TMDS DATA 1 Shield	
	6	TMDS DATA 1M	
	7	TMDS DATA 0P	
	8	TMDS DATA 0 Shield	
	9	TMDS DATA 0M	
	10	TMDS Clock P	
	11	TMDS Clock Shield	
	12	TMDS Clock M	
	13	CEC	
	14	RESERVED	
	15	DDC Clock	
	16	DDC DATA	
	17	GND	
	18	+5v	
	19	Hot Plug Detect	

Warranty Information

1 (One) Year Warranty

RTcomUSA, Inc. warrants this Digital extender® HD-D102N HDMI Distribution Amplifiers to be free from defects in workmanship and materials, under normal use and service, for a period of one (1) year from the date of purchase from RTcomUSA Inc. or its authorized resellers.

If a product does not work as warranted during the applicable warranty period, RTcomUSA, Inc. shall, at its option and expense, repair the defective product or part, deliver to customer an equivalent product or parts to replace the defective item, or refund to customer the purchase price paid for the defective product.

All products that are replaced will become the property of RTcomUSA, Inc.

Replacement products may be new or reconditioned.

Any replaced or repaired product or parts has a ninety (90) day warranty or the remainder of the initial warranty period, whichever is longer.

RTcomUSA, Inc. shall not be responsible for any software, firmware, information, or memory data of customer contained in, stored on, or integrated with any products returned to RTcomUSA, Inc. for repair under warranty or not.

Warranty Limitation and Exclusion

RTcomUSA, Inc. shall have no further obligation under the foregoing limited warranty if the product has been damaged due to abuse, misuse, neglect, accident, unusual physical or electrical stress, unauthorized modifications, tampering, alterations, or service other than by RTcomUSA, Inc. or its authorized agents, causes other than from ordinary use or failure to properly use the Product in the application for which said Product is intended.

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